

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) A system comprising:
 - 2 a plurality of devices, wherein devices within the plurality of devices
 - 3 communicate with incompatible protocols;
 - 4 a first device in the plurality of devices having a universal contextual
 - 5 interface,
wherein the universal contextual interface does not have a priori
knowledge of the devices' file system domain protocol or the devices'
printer domain protocol,
wherein the devices' file system domain protocol comprises
Network File System (NFS) or Common Internet File System (CIFS),
wherein the devices' printer domain protocol comprises Internet
Printing Protocol (IPP) or Line Printer Daemon,
13 wherein the universal contextual interface is implemented in Java;
14 wherein the universal contextual interface comprises instructions
15 that are particular to the first device, wherein the instructions can:
16 be understood and performed by the plurality of devices to
17 enable the plurality of devices to communicate and transfer
18 contextual data with the first device;
19 provide event notifications to the plurality of devices with
20 respect to changes in contextual data for the first device; and

enable the plurality of devices to receive user interfaces to
allow users of the plurality of devices to view changed contextual
data or enable the plurality of devices to receive data from the first
device; and
wherein contextual data includes information with respect to the
first device including type, owner, history of use, whether the first device
is currently in use, other operating status information, identity, location on
network, administrative domain, information with respect to one or more
users of the first device or files stored at the first device; and
a second device in the plurality of devices that invokes the universal
contextual interface of the first device by executing the instructions to transfer the
contextual data associated with the first device between the first device and at
least one of the other devices in the plurality of devices, the plurality of devices
having no prior knowledge of each other;
wherein the universal contextual interface is directly invoked by the
second device to allow the contextual data to be transferred to the second device;
wherein the second device registers as a listener with the first device
through a notification interface of the first device to receive event notifications
with respect to changes in the contextual data associated with the first device; and
wherein the universal contextual interface allows components using
different operating systems, communication protocols, file formats, and data types
to transfer context information between each other without requiring the
components to use domain-specific interfaces, protocols, or data format.

2. (Previously Presented) The system as set forth in claim 1 wherein the at
least one of the plurality of devices comprises the second device.

3. (Previously Presented) The system as set forth in claim 1 wherein the

2 first device sends a context object to the second device to be used by the second
3 device to transfer the contextual data.

1 4. (Previously Presented) The system as set forth in claim 1 wherein the
2 second device receives a context object from the first device to be used by the at
3 least one of the plurality of devices for receiving contextual data transmitted from
4 the first device.

1 5. (Previously Presented) The system as set forth in claim 1 wherein the at
2 least one of the plurality of devices uses the contextual data as a criteria to
3 authorize the first device or the second device to access instructions, data or
4 operations associated with the at least one of the plurality of devices.

1 6. (Previously Presented) The system as set forth in claim 1 wherein the
2 universal contextual interface or a context object have source-specific, object-
3 oriented mobile code that can be understood and performed by the at least one of
4 the plurality of devices to receive contextual data.

1 7. (Previously Presented) The system as set forth in claim 1 wherein the
2 plurality of devices further comprise at least one software application or at least
3 one file.

1 8. (Previously Presented) The system as set forth in claim 1 wherein the
2 first device further comprises a historical database having at least one record of
3 data provided by the second device during invocation of the universal contextual
4 interface.

1 9. (Previously Presented) The system as set forth in claim 1 wherein the

2 second device invokes a universal notification interface to register at least one
3 of the plurality of devices to receive an event notification each time the contextual
4 data changes.

1 10. (Previously Presented) The system as set forth in claim 1 wherein the
2 contextual data comprises executable computer language instructions, or a type,
3 operating status, identity, location, administrative domain or environment
4 information of at least one of the plurality of devices.

1 11. (Currently amended) A method for providing context information, the
2 method comprising:

3 invoking a universal contextual interface associated with a first device in a
4 plurality of devices, wherein devices within the plurality of devices communicate
5 with incompatible protocols, and wherein the universal contextual interface is
6 implemented in Java,

7 wherein the universal contextual interface does not have a priori
8 knowledge of the devices' file system domain protocol or the devices'
9 printer domain protocol,

10 wherein the devices' file system domain protocol comprises
11 Network File System (NFS) or Common Internet File System (CIFS),
12 wherein the devices' printer domain protocol comprises Internet
13 Printing Protocol (IPP) or Line Printer Daemon,

14 wherein the universal contextual interface comprises instructions
15 that are particular to the first device, wherein the instructions can:

16 be understood and performed by the plurality of devices to
17 enable the plurality of devices to communicate and transfer
18 contextual data with the first device;

19 provide event notifications to the plurality of devices with
20 respect to changes in contextual data for the first device; and
21 enable the plurality of devices to receive user interfaces to
22 allow users of the plurality of devices to view changed contextual
23 data or enable the plurality of devices to receive data from the first
24 device; and
25 wherein contextual data includes information with respect to the
26 first device including type, owner, history of use, whether the first device
27 is currently in use, other operating status information, identity, location on
28 network, administrative domain, information with respect to one or more
29 users of the first device or files stored at the first device; and
30 wherein invoking the universal contextual interface involves executing the
31 instructions to transfer the contextual data associated with the first device
32 between the first device and a second device in the plurality of devices, the
33 plurality of devices having no prior knowledge of each other;
34 wherein the universal contextual interface is directly invoked by the
35 second device to allow the contextual data to be transferred to the second device;
36 wherein the second device registers as a listener with the first device
37 through a notification interface of the first device to receive event notifications
38 with respect to changes in the contextual data associated with the first device; and
39 wherein the universal contextual interface allows components using
40 different operating systems, communication protocols, file formats, and data types
41 to transfer context information between each other without requiring the
42 components to use domain-specific interfaces, protocols, or data format.

1 12. (Previously Presented) The method as set forth in claim 11 wherein the
2 second device or a third device in the plurality of devices perform the invoking
3 and executing.

1 13. (Previously Presented) The method as set forth in claim 11 further
2 comprising sending a context object to the at least one of the plurality of devices
3 to be used for transferring the contextual data.

1 14. (Previously Presented) The method as set forth in claim 11 further
2 comprising using the contextual data as a criteria to authorize the second device
3 to access instructions, data or operations associated with the one of the plurality
4 of devices.

1 15. (Previously Presented) The method as set forth in claim 11 wherein the
2 universal contextual interface or a context object have source-specific, object-
3 oriented mobile code that can be interpreted and performed by the first device or
4 the at least one of the plurality of devices to receive contextual data.

1 16. (Previously Presented) The method as set forth in claim 11 wherein the
2 plurality of devices further comprise at least one software application or at least
3 one file.

1 17. (Original) The method as set forth in claim 11 further comprising
2 storing in a historical database at least one record of data provided during
3 invocation of the universal contextual interface.

1 18. (Previously Presented) The method as set forth in claim 11 further
2 comprising invoking a universal notification interface to register the at least one
3 of the plurality of devices to receive an event notification each time the contextual
4 data changes.

1 19. (Previously Presented) The method as set forth in claim 11 wherein the

2 contextual data comprises executable computer programming language
3 instructions or a type, operating status, identity, location, administrative domain
4 or environment information of at least one of the devices or of at least one user of
5 the plurality of devices.

1 20. (Currently amended) A computer readable medium having stored
2 thereon instructions for providing context information, which when executed by
3 at least one processor, causes the processor to perform:
4 invoking a universal contextual interface associated with a first device in a
5 plurality of devices, wherein devices within the plurality of devices communicate
6 with incompatible protocols, and wherein the universal contextual interface is
7 implemented in Java;
8 wherein the universal contextual interface does not have a priori
9 knowledge of the devices' file system domain protocol or the devices'
10 printer domain protocol,
11 wherein the devices' file system domain protocol comprises
12 Network File System (NSF) or Common Internet File System (CIFS),
13 wherein the devices' printer domain protocol comprises Internet
14 Printing Protocol (IPP) or Line Printer Daemon,
15 wherein the universal contextual interface comprises instructions
16 that are particular to the first device, wherein the instructions can:
17 be understood and performed by the plurality of devices to
18 enable the plurality of devices to communicate and transfer
19 contextual data with the first device;
20 provide event notifications to the plurality of devices with
21 respect to changes in contextual data for the first device; and
22 enable the plurality of devices to receive user interfaces to
23 allow users of the plurality of devices to view changed contextual

24 data or enable the plurality of devices to receive data from the first
25 device; and
26 wherein contextual data includes information with respect to the
27 first device including type, owner, history of use, whether the first device
28 is currently in use, other operating status information, identity, location on
29 network, administrative domain, information with respect to one or more
30 users of the first device or files stored at the first device; and
31 wherein invoking the universal contextual interface involves executing the
32 instructions to transfer the contextual data associated with the first device
33 between the first device in and a second device in the plurality of devices, the
34 plurality of devices having no prior knowledge of each other; and
35 wherein the universal contextual interface is directly invoked by the
36 second device to allow the contextual data to be transferred to the second device;
37 wherein the second device registers as a listener with the first device
38 through a notification interface of the first device to receive event notifications
39 with respect to changes in the contextual data associated with the first device; and
40 wherein the universal contextual interface allows components using
41 different operating systems, communication protocols, file formats, and data types
42 to transfer context information between each other without requiring the
43 components to use domain-specific interfaces, protocols, or data format.

1 21. (Previously Presented) The medium as set forth in claim 20 wherein
2 the second device or a third device in the plurality of devices perform the
3 invoking and executing.

1 22. (Previously Presented) The medium as set forth in claim 20 further
2 comprising sending a context object to the at least one of the plurality of devices
3 to be used for transferring the contextual data.

1 23. (Previously Presented) The medium as set forth in claim 20 further
2 comprising using the contextual data as a criteria to authorize the second device
3 to access instructions, data or operations associated with the one of the plurality
4 of devices.

1 24. (Previously Presented) The medium as set forth in claim 20 wherein
2 the universal contextual interface or a context object have source-specific, object-
3 oriented mobile code that can be interpreted and performed by the first device or
4 the at least one of the plurality of devices to receive contextual data.

1 25. (Previously Presented) The medium as set forth in claim 20 wherein
2 the plurality of devices further comprise at least one software application or at
3 least one file.

1 26. (Original) The medium as set forth in claim 20 further comprising
2 storing in a historical database at least one record of data provided during
3 invocation of the universal contextual interface.

1 27. (Previously Presented) The medium as set forth in claim 20 further
2 comprising invoking a universal notification interface to register the at least one
3 of the plurality of devices to receive an event notification each time the contextual
4 data changes.

1 28. (Previously Presented) The medium as set forth in claim 20 wherein
2 the contextual data comprises executable computer programming language
3 instructions or a type, operating status, identity, location, administrative domain
4 or environment information of at least one of the devices or of at least one user of
5 the plurality of devices.